

## **Federal Operating Permit Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

|                      |  |
|----------------------|--|
| Permittee Name:      | City of Bristol, Virginia                                  |
| Facility Name:       | City of Bristol Integrated Solid Waste Management Facility |
| Facility Location:   | 2125 Shakesville Road, Bristol, Virginia                   |
| Registration Number: | 11184  |
| Permit Number:       | SWRO11184  |

|                 |                       |
|-----------------|-----------------------|
| Effective Date: | <u>March 13, 2011</u> |
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| Expiration Date: | <u>March 12, 2016</u> |
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Dallas R. Sizemore  
Regional Director

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|-----------------|----------------------|
| Signature Date: | <u>March 1, 2011</u> |
|-----------------|----------------------|

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## **I. Facility Information**

### **Permittee**

City of Bristol, Virginia,  
300 Lee Street  
Bristol, Virginia 24201

### **Responsible Official**

Ms. Tabitha Crowder  
Director of Public Works

### **Facility**

City of Bristol Integrated Solid Waste Management Facility  
2125 Shakesville Road  
Bristol, Virginia 24201

### **Contact Person**

Mr. Mark A. Campbell  
E&S Compliance Officer  
(276) 645-3788

**County-Plant Identification Number:** 51-520-00160

**Facility Description:** NAICS Code: 562212 - Collection and disposal of non-hazardous solid waste.

City of Bristol Integrated Solid Waste Management Facility consists of three landfill units located on contiguous property and separated by landfill haul roads. All three landfill units have accepted only municipal solid waste and non-hazardous special waste.

The first landfill unit designated by Solid Waste Permit Number 221, accepted waste from 1977 to 1986. This unit is closed.

The second landfill unit designated by Solid Waste Permit Number 498, accepted waste from 1986 to present. The waste acceptance rate of this unit is minimal. Wastes in Landfill No. 498 are being reclaimed through landfill mining. Excavated material is screened to separate the waste from daily/intermediate cover and recyclable materials, such as ferrous and non-ferrous metals. The waste is then disposed in the third landfill unit. Excavated soil is used elsewhere in the facility and the recyclable materials are processed appropriately.

The third landfill unit designated by Solid Waste Permit Number 588 began accepting waste in March of 1998, and is currently active.

A gas collection system has been constructed and is currently operating at each landfill unit (221, 498 and 588). Construction of the gas collection system for unit 588 is ongoing with the progression of waste filling. Collected gas from each landfill unit is controlled by combustion in a Parnell Biogas open utility flare and/or a Pactherm Model 2012 controlled-air incinerator. A second, permitted utility flare (LFG&E) was removed from the facility on September 3, 2003.

Emissions from the landfill units include non-methane organic compounds (NMOC), volatile organic compounds (VOC), hazardous air pollutants (HAP), fugitive dust and products of combustion from the

utility flares. Wood wastes and packaged paper delivered to the landfill are combusted in the incinerator. Emissions from the incinerator include NMOC, VOC, particulate matter (PM), carbon monoxide (CO), nitrogen oxides as nitrogen dioxide (NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>).

The facility is permitted under a minor New Source Review permit issued July 7, 2003, as amended November 13, 2003, and October 13, 2004.

## II. Emission Units

Equipment to be operated consists of:

| Emission Unit ID                                 | Stack ID | Emission Unit Description                              | Size/Rated Capacity*      | Pollution Control Device (PCD) Description   | PCD ID           | Pollutant Controlled | Applicable Permit Date                  |
|--|----------|--|---------------------------|--|------------------|----------------------|---|
| Fuel Burning Equipment (P02, PCD-01, and PCD-02) |          |  |                           |  |                  |                      |   |
| P02  | S02      | Crochet Equipment Co., Pactherm Model 2012 incinerator | 1,700 lb/hr               | Afterburning secondary chamber   | C02              | PM, CO, VOC and NMOC | 7/7/03 as amended 11/13/03 and 10/13/04 |
| PCD-01   | S01      | Parnel Biogas utility flare                            | 1,250 scfm                | ---  | C01              | NMOC and VOC         | 7/7/03 as amended 11/13/03 and 10/13/04 |
| PCD-02   | S03      | LFG&E utility flare (removed 9/3/03)                   | 150 scfm                  | ---  | C03              | NMOC and VOC         | 7/7/03 as amended 11/13/03 and 10/13/04 |
| Municipal Solid Waste (MSW) Landfill Units (P01) |          |  |                           |  |                  |                      |   |
| P01  | ---      | Closed MSW landfill unit, Solid Waste Permit No. 221   | 694,700 yd <sup>3</sup>   | Parnel Biogas utility flare, Pactherm Model 2012 incinerator. The LFG&E utility flare was removed on 9/3/03. | C01, C02 and C03 | NMOC and VOC         | 7/7/03 as amended 11/13/03 and 10/13/04 |
|  | ---      | MSW landfill unit, Solid Waste Permit No. 498          | 1,199,224 yd <sup>3</sup> |  |                  |                      |   |
|  | ---      | MSW landfill unit, Solid Waste Permit No. 588          | 7,700,000 yd <sup>3</sup> |  |                  |                      |   |
| Incinerator (P02)                                |          |  |                           |  |                  |                      |   |
| P02  | S02      | Crochet Equipment Co., Pactherm Model 2012 incinerator | 1,700 lb/hr               | Afterburning secondary chamber   | C02              | PM, CO, VOC and NMOC | 7/7/03 as amended 11/13/03 and 10/13/04 |
| Landfill Surface and Haul Roads (P03)            |          |  |                           |  |                  |                      |   |
| P03  | ---      | Landfill surface and haul roads                        | ---                       | Wet suppression  | ---              | PM                   | 7/7/03 as amended 11/13/03 and 10/13/04 |

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

### **III. Fuel Burning Equipment Requirements – (emission unit ID P02)**

#### **A. Limitations**

1. When using landfill gas to fuel the incinerator, P02, the unit must comply with the requirements of 40 CFR 60.752(b)(2)(iii)(B) to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen.  
(9 VAC 5-80-110, 40 CFR 60.752(b)(2)(iii)(B), and Condition 4.g.ii of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
2. Fugitive dust controls shall include the following, or equivalent, as a minimum:
  - a. Dust from ash and material handling and load-outs shall be controlled by wet suppression or equivalent control measures (as approved by the DEQ).
  - b. Fugitive emissions from opening the primary combustion chamber shall be minimized by water sprays or equivalent, as needed. There shall be no exemption from this requirement due to cold weather.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-20, 9 VAC 5-50-90, and Conditions 7.a. and 7.b. of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
3. Particulate emissions, carbon monoxide emissions and opacity from the incinerator, P02, shall be controlled by a secondary combustion chamber and shall be in operation when the Pactherm incinerator is operating.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 11 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
4. The minimum primary and secondary chamber temperatures in the incinerator, P02, shall be maintained at 1400 °F and 1600 °F, respectively, when the incinerator is in operation, except when feeding a load of waste. The listed minimum primary and secondary chamber temperatures shall be maintained until no combustible materials are left on the hearth.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 12 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
5. The burn-down cycle shall be automatically controlled and the minimum burn-down cycle time shall be the manufacturer's recommended time of 2 hours after the last batch is charged into the incinerator, P02. The incinerator shall remain in operation until such time that no combustible materials are left on the hearth. In no event shall this be less than the time required to destroy any visible and odorous emissions.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 15 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
6. The incinerator, P02, shall be charged with no more than the rated load of 3,500 pounds per cycle and 4,640 tons per year of debris waste and other wood materials

that are not contaminated with and do not contain or have affixed thereto plastic or other chemical materials. The approved waste includes cardboard-boxed paper documents, lumber, stumps, brush, leaves, pallets, wooden boxes, spools, and wood materials, excluding any type of waste or material not listed. The unit shall not burn raw municipal waste, refuse, animal carcasses, medical waste, garbage, liquid waste, or hazardous waste. No reclaim materials shall be combusted in the incinerator. For the purpose of this condition, reclaim means any material excavated or recovered from the landfill. The cycle weight may be estimated from the amount of load placed on the moving floor loader. Annual limits are based on the sum of each consecutive 12-month period.

(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 17 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

7. The incinerator shall be charged with no more than 2,500 tons per year of cardboard-boxed paper documents that are not contaminated with and do not contain or have affixed thereto plastic or other chemical materials. The boxed paper shall be bound with packing tape or equivalent. Loose paper and cardboard shall not be charged to the incinerator. The annual limit is based on the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 18 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
8. The approved fuels for both the primary and secondary combustion chambers in the incinerator, P02, are natural gas and landfill gas. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 19 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
9. Emissions from the operation of the incinerator, P02, shall not exceed the limits specified below:

|                                       |  |               |
|---------------------------------------|--|---------------|
| Particulate Matter                    | 0.10 gr/dscf @ 12% CO <sub>2</sub> or 7% O <sub>2</sub>        |               |
| Carbon Monoxide                       | 100 ppmvd 1-hr avg. @ 12% CO <sub>2</sub> or 7% O <sub>2</sub> |               |
| Nitrogen Oxides (as NO <sub>2</sub> ) | 9.41 lbs/hr  | 10.84 tons/yr |
| Volatile Organic Compounds            | 3.3 lbs/hr   | 3.5 tons/yr   |
| Sulfur Dioxide                        | 0.66 lb/hr   | 1.73 tons/yr  |

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers III.A.3 through III.A.8.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC-5-50-180, and Condition 20 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

10. Visible emissions from the incinerator shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 22 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
11. Visible emissions from material handling at the incinerator, from opening the door to the incinerator primary combustion chamber, and from load-outs at the incinerator, shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 23 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
12. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - b. Maintain an inventory of spare parts.
  - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
  - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.  
(9 VAC 5-80-110, 9 VAC 5-50-20 E, and Condition 37 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

## **B. Monitoring**

1. The primary and secondary chambers shall be equipped with continuous temperature sensors at or near the chamber exits to indicate the temperatures in each chamber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the incinerator is operating.  
(9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 13 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
2. The incinerator shall be equipped with automatic thermostats to maintain the minimum primary and secondary chamber temperatures during operation.  
(9 VAC 5-50-260, 9 VAC 5-80-110, and Condition 14 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)



3. The permittee shall perform a visible emissions observation on the incinerator, P02, once each calendar week when the unit is operating. Each visible emissions observation shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions (condensed water vapor/steam is not a visible emission) are observed during any of the visible emissions observations, the permittee shall take appropriate action to correct the cause of opacity. If such action fails to eliminate visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9 for a minimum of 6 minutes. If the 6-minute average opacity exceeds 5 percent, the Method 9 VEE shall continue for one hour to determine compliance with the opacity limit. The permittee shall record the details of each visible emissions observation, which shall include, at a minimum, the date and time of the observation, whether there were visible emissions, and any corrective action.  
(9 VAC 5-80-110)

**C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
  - a. Annual hours of operation of the incinerator, calculated monthly as the sum of each consecutive 12-month period.
  - b. Annual consumption of natural gas for the incinerator, calculated monthly as the sum of each consecutive 12-month period.
  - c. Annual consumption of landfill gas, when used for the incinerator, calculated monthly as the sum of each consecutive 12-month period.
  - d. Annual throughput of all approved waste to the incinerator, calculated monthly as the sum of each consecutive 12-month period.
  - e. Length of each burn-down time and operating temperature of the incinerator for the burn-down cycle.
  - f. Scheduled and unscheduled maintenance, operating procedures and operator training as required by Condition III.A.12 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, and Conditions 28 and 37 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

**D. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This

includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations (reference 40 CFR Part 60, Appendix B.)

(9 VAC 5-50-30 F, and Condition 16 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

#### **IV. Landfill Requirements - (emission unit ID P01, P02, P03, PCD-01 and PCD-02)**

##### **A. Limitations**

1. The Integrated Solid Waste Management Facility consists of three (3) municipal solid waste (MSW) landfills that make up P01, with the following capacities:

- Closed MSW Landfill Permit No. 221 – 694,700 cubic yards;
- Active MSW Landfill Permit No. 498 – 1,199,224 cubic yards; and
- Active MSW Landfill Permit No. 588 – 7,700,000 cubic yards.

The total design capacity of the municipal solid waste landfills, P01, is 9,593,924 cubic yards. A change in the design capacity shall require the permittee to submit an amended design capacity report to the Director, Southwest Regional Office and may require a permit to modify and operate.

(9 VAC 5-50-390, 9 VAC 5-80-110, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 60.757, 40 CFR 63.1955(a)(1), and Condition 3 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

2. The permittee shall construct and operate a LFG collection and control system which:
  - a. Is designed to handle the maximum expected gas flow rate from the entire area of the landfill, P01, that warrants control over the intended use period of the gas control or treatment system equipment;
  - b. Collects gas from each area, cell, or group of cells where initial solid waste has been in place for a period of:
    - (i) Five years or more if active; or
    - (ii) Two years or more if closed or at final grade;
  - c. Collect gas at a sufficient extraction rate;

- d. Is operated with each wellhead under negative pressure except as provided in 40 CFR 60.753(b);
- e. Is operated with each interior wellhead in the collection system having a landfill gas temperature less than 55 °C and having either:
  - (i) A nitrogen content less than 20%, as determined by EPA Method 3C (reference 40 CFR 60, Appendix) unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i); or
  - (ii) An oxygen content less than 5%, as determined by an oxygen meter using EPA Method 3A or 3C (reference 40 CFR 60, Appendix A) except as specified in 40 CFR 60.753(c)(2), unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i);

A higher operating temperature, nitrogen, or oxygen value at a particular well may be established. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens;
- f. Is designed to minimize off-site migration of subsurface gas;
- g. Routes all collected gas to a control system that complies with the requirements in either (i), (ii), or (iii) below:
  - (i) An open flare designed and operated in accordance with 40 CFR 60.18;
  - (ii) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million volume (ppmv), dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d).
    - (1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
    - (2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in Condition IV.B.2 of this permit.
  - (iii) A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of Conditions IV.A.g.(i) or IV.A.g.(ii) of this permit; and
- h. Maintains the methane concentration at the surface of the landfill at less than 500 ppmv above the background level.

A change in the collection and control system may require a permit to modify and operate and additional requirements of 40 CFR 60.753.

(9 VAC 5-80-110, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 60.752, 40 CFR 60.753, and Condition 4 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

3. The gas control system shall be in operation at all times when the collected gas is routed to the system. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.  
(9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.753 (e) and (f), and Condition 5 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
4. Each open flare, PCD-01 and PCD-02, shall meet the criteria in 40 CFR 60.18.  
(9 VAC 5-50-410 Subparts A and WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 60.752(b)(2)(iii), 40 CFR 63.1955(a)(1), and Condition 6 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
5. Fugitive dust emissions from grading, cell construction, waste compaction, application of daily cover, storage piles, material handling, load-outs and traffic areas shall be controlled by wet suppression or equivalent control measures (as approved by DEQ).  
(9 VAC 5-50-260, 9 VAC 5-50-20, 9 VAC 5-50-90, and Condition 7(a) of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
6. Each open flare, PCD-01 and PCD-02, shall be operated with no visible emissions, as determined by EPA Method 22 (reference 40 CFR 60, Appendix A), except for periods not to exceed a total of five minutes during any two consecutive hours. This applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-50-260, 9 VAC 5-50-410 Subparts A and WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.752(b)(2)(iii)(A), and Condition 21 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
7. The permittee shall, to the extent practicable, maintain and operate any affected facility including air pollution control equipment or monitoring equipment, in a manner consistent with good air pollution control practice of minimizing emissions. This condition applies at all times including periods of startup, shutdown and malfunction.  
(9 VAC 5-20-180 A)
8. Except where this permit is more restrictive than the applicable requirement, the municipal solid waste landfill shall be constructed and operated in compliance with the requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA.  
(9 VAC 5-50-410, 40 CFR 60 Subpart WWW, 40 CFR 63 Subpart AAAA, and Condition 25 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

9. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
    - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
    - b. Maintain an inventory of spare parts.
    - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
    - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.
    - e. Develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard.
    - f. During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the affected source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan.
- (9 VAC 5-80-110, 9 VAC 5-50-20 E, 40 CFR 63.1960, 40 CFR 63.10(b)(2)(iii), and Condition 37 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

## **B. Monitoring**

1. The operation of the gas collection system shall be monitored as follows:
    - a. The following items shall be monitored each month:
      - (i) Gauge pressure in the collection header at each individual well.
      - (ii) LFG temperature in each well.
      - (iii) Nitrogen concentration or oxygen concentration in each well.
      - (iv) Cover integrity of the landfill.
    - b. The methane concentration at the landfill surface shall be monitored in accordance with 40 CFR 60.755(c) and 40 CFR 60.756(f). All components of the leachate collection system that penetrate the surface of the landfill shall be included in the surface monitoring program.
- (9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.755, 40 CFR 60.756, and Condition 8 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

2. The operation of the gas control system shall be monitored as follows:
  - a. Installation and operation of a device that records gas flow to or bypass of each control device, P02, PCD-01 and PCD-02. Gas flow to each control device shall be recorded at least every 15 minutes or each bypass line valve shall be secured in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of each seal or closure mechanism shall be performed at least once every month.
  - b. When the incinerator, P02, is burning LFG: calibration, maintenance and operation, according to the manufacturer's specifications, of a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  degrees Celsius, whichever is greater.
  - c. Calibration, maintenance and operation according to the manufacturer's specifications, of a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame of each open flare, PCD-01 and PCD-02, to indicate the continuous presence of a flame.  
(9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.756, and Condition 9 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
3. If monitoring demonstrates that the requirements of Condition IV.A.2 are not being met, corrective actions shall be taken as specified in 40 CFR 755(a)(3) through (a)(5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755(c)(4), the monitored exceedance is not a violation of the operational requirements of this permit or 40 CFR 60, Subpart WWW.  
(9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.753(g) and Condition 10 of the 7/7/03 Permit, as amended 11/13/03 and 10/13/04)
4. The permittee shall perform a visible emissions observation on each open flare, PCD-01 and PCD-02, once each calendar month when the unit is operating. Each visible emissions observation shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions (condensed water vapor/steam is not a visible emission) are observed during any of the visible emissions observations, the permittee shall take appropriate action to correct the cause of opacity. If such action fails to eliminate visible emissions, the permittee shall conduct a visible emissions observation in accordance with 40 CFR Part 60, Appendix A, Method 22 for a minimum of 6 minutes. If visible emissions are observed within the 6-minute observation period, the Method 22 observation shall continue for two hours to determine compliance with the opacity limit. The permittee shall record the details of each visible emissions observation, which shall include, at a minimum, the date and time of the observation, whether there were visible emissions, and any corrective action. The permittee shall record the details

of each Method 22 observation, which shall include, at a minimum, data required by 40 CFR Part 60, Appendix A, Method 22.  
(9 VAC 5-80-110)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall be maintained for each landfill and shall include, but are not limited to:
  - a. The design capacity report, which made applicable 40 CFR 60.752(b), the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
  - b. Vendor specifications of each LFG control device, P02, PCD-01 and PCD-02.
  - c. Description, location, amount, and placement date of all non-degradable refuse, including asbestos and demolition refuse placed in landfill areas which are excluded from landfill gas estimation and landfill gas collection and control.
  - d. Installation date and location of all installed collectors as specified under 40 CFR 60.755(b).
  - e. Plot map showing each existing and planned collector in the gas collection system with each collector uniquely identified.
  - f. The maximum expected LFG generation flow rate as calculated in 40 CFR 60.755(a)(1). Another method may be used to determine the maximum gas generation flow rate, if approved by DEQ.
  - g. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1).
  - h. The average combustion temperature of the incinerator, P02, when burning landfill gas, measured at least every 15 minutes and averaged over the same time period of the performance test.
  - i. The percent reduction of NMOC achieved by the incinerator, P02, when burning landfill gas determined as specified in 40 CFR 60.752(b)(2)(iii)(B).
  - j. Parameters monitored in Conditions IV.B.1 and IV.B.2 of this permit and records of operation during which the parameter boundaries established during the most recent performance test are exceeded.
  - k. For each open flare, PCD-01 and PCD-02: the flare type, all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance

test as specified in 40 CFR 60.18, continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operation during which the pilot flame of the flare flame is absent.

- l. Continuous records of the indication of LFG flow to each control device, P02, PCD-01 and PCD-02, or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under Condition IV.B.2a of this permit.
- m. All collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- n. Age of the landfill.
- o. Scheduled and unscheduled maintenance, operating procedures and operator training as required by Condition IV.A.9 of this permit.
- p. The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment).
- q. The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment.
- r. Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the startup, shutdown, and malfunction plan.
- s. All information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in the startup, shutdown, and malfunction plan.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years unless otherwise required.

(9 VAC 5-170-160, 9 VAC 5-80-110, 9 VAC 5-50-50, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(a) and (b), 40 CFR 60.758, and Conditions 28 and 37 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

#### **D. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and



providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations (reference 40 CFR Part 60, Appendix B.)

(9 VAC 5-80-110, 9 VAC 5-50-30 F, and Condition 16 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

2. Initial performance tests shall be conducted to determine the net heating value of the gas being combusted and the actual exit velocity for the LFG&E flare, PCD-02. The tests shall be performed, and demonstrate compliance within 60 days after achieving maximum production rate at which the flare will be operated but no later than 180 days after initial start-up of the flare. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations. Applicable test methods and procedures contained in 40 CFR 60.18 or alternative test methods and procedures as approved by EPA, Region III shall be used. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results for each flare shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and 180 days after initial start-up of the flare. Each test report shall conform to the test report format enclosed with this permit and shall be submitted with the semi-annual compliance report specified in this permit.  
(9 VAC 5-80-110, 9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.752(2)(iii)(A), and Condition 26 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
3. Concurrently with the initial performance tests, Visible Emissions Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 22, shall also be conducted by the permittee on the LFG&E flare, PCD-02. Each observation period shall be two hours. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed within 60 days after achieving the maximum production rate at which the flare will be operated but no later than 180 days after initial start-up of the flare. Should conditions prevent observations, the Southwest Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions as possible as the initial performance tests. Two copies of the test results shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110, 9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.752(2)(iii)(A) and Condition 27 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

4. After the installation of a gas collection and control system in compliance with 40 CFR 60.755, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the following equation:  
$$MNOC = 1.89 \times 10^{-3}(QLFG)(CNMOC), \text{ where,}$$

MNOC = mass emission rate of NMOC, megagrams per year,  
QLFG = flow rate of landfill gas, cubic meters per minute, and  
CNMOC = NMOC concentration, parts per million by volume as hexane.

  - a. The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of 40 CFR Part 60, Appendix A, Method 2E.
  - b. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18, of 40 CFR Part 60, Appendix A. If using 40 CFR Part 60, Appendix A, Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The permittee shall divide the NMOC concentration from 40 CFR Part 60, Appendix A, Method 25C by six to convert from CNMOC as carbon to CNMOC as hexane.
  - c. The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the DEQ.  
(9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1955(a)(1), 40 CFR 60.754(b), and Condition 24 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

#### **E. Reporting**

1. As required by 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, the permittee shall submit to the Director, Southwest Regional Office a semi-annual compliance report of the collection and control system. The report shall contain the following:
  - a. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d);
  - b. Description and duration of all periods when the gas stream is diverted from each control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756;
  - c. Description and duration of all periods when each control device was not working for a period exceeding one hour and the length of time each control device was not operating;

- d. All periods when the collection system was not operating in excess of five days;
- e. The location of each exceedance of the 500 parts per million surface methane concentration, and the concentration recorded at each location for which an exceedance was recorded, as provided in 40 CFR 60.755(c);
- f. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), 40 CFR 60.755(b), and 40 CFR 60.755(c)(4).

Each report shall cover the previous six months period and shall be submitted no later than March 1, and September 1, of each calendar year. One copy of each compliance report shall be submitted to the U.S. Environmental Protection Agency at the following address:

Associate Director  
Office of Air Enforcement and Compliance Assistance, 3AP20  
U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

(9 VAC 5-50-50 H, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(a) and (b), 40 CFR 60.757(f), and Condition 29 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

- 2. Any time an action taken by the permittee during a startup, shutdown, or malfunction (including actions to correct a malfunction) is not consistent with the procedures of the startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the permittee shall report the actions taken for the event to the Director, Southwest Regional Office by telephone or facsimile transmission within 2 working days after commencing such actions. The permittee shall report to the Director, Southwest Regional Office by letter, delivered or postmarked within 7 working days after the end of the event, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. The letter shall contain the name, title, and signature of the responsible official certifying its accuracy. One copy of each report shall be submitted to the U.S. Environmental Protection Agency at the address indicated in Condition IV.E.1 of this permit.  
(9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(b), and 40 CFR 63.10 (d)(5)(ii))
- 3. The permittee shall submit to the Director, Southwest Regional Office a semi-annual startup, shutdown, and malfunction report containing the following:

- a. Actions taken during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) that are consistent with the procedures specified in the startup, shutdown, and malfunction plan;
- b. Actions taken during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) of an affected source that are not consistent with the procedures specified in the startup, shutdown, and malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard;
- c. The number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded;
- d. The name, title, and signature of the responsible official who is certifying the accuracy of the report.

Reports are only required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall be submitted no later than March 1 and September 1 of each calendar year. The time periods to be addressed are January 1 to June 30, and July 1 to December 31. One copy of each report shall be submitted to the U.S. Environmental Protection Agency at the address indicated in Condition IV.E.1 of this permit.

(9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(b), and 40 CFR 63.10 (d)(5)(i))

4. Within 30 days of the date the MSW landfill stopped accepting waste, the permittee shall submit a closure report to the Director, Southwest Regional Office. One copy of each report shall be submitted to the U.S. Environmental Protection Agency at the address indicated in Condition IV.E.1 of this permit.  
(9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(a), 40 CFR 60.757(d), and Condition 30 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
5. At least 30 days prior to the removal or cessation of operation of the control equipment, the permittee shall submit an equipment removal report to the Director, Southwest Regional Office. The report shall be submitted in accordance with 40 CFR 60.757(e) and shall demonstrate to the satisfaction of the DEQ that the remaining affected facility will be in compliance with 9 VAC 5-50-260, Standard for stationary sources. One copy of each report shall be submitted to the U.S. Environmental Protection Agency at the address indicated in Condition IV.E.1 of this permit.  
(9 VAC 5-50-260, 9 VAC 5-50-410 Subpart WWW, 9 VAC 5-60-100 Subpart AAAA, 40 CFR 63.1980(a), 40 CFR 60.757(e), and Condition 31 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)
6. The actual emissions subject to the permit program fees for the preceding year shall be calculated by the owner and submitted to the Director, Southwest Regional

Office by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the DEQ.

(9 VAC 5-80-340 C, and Condition 32 of the 7/7/03 permit, as amended 11/13/03 and 10/13/04)

7. The permittee shall submit an amended design capacity report to the Director, Southwest Regional Office providing notification of an increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first.  
(9 VAC 5-170-160, 9 VAC 5-80-110, and 40 CFR 60.757)

## V. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

| Emission Unit No. | Emission Unit Description       | Citation          | Pollutant Emitted (9 VAC 5-80-720 B.) | Rated Capacity (9 VAC 5-80-720 C.) |
|-------------------|---------------------------------|-------------------|---------------------------------------|------------------------------------|
| P04               | Leachate Collection and Storage | 9 VAC 5-80-720 B. | NMOC and VOC                          | N/A                                |
| P05               | Tire Shredding                  | 9 VAC 5-80-720 B. | PM                                    | N/A                                |
| -----             | Small Storage Tanks             | 9 VAC 5-80-720 B. | NMOC and VOC                          | N/A                                |

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

(9 VAC 5-80-720, and 9 VAC 5-80-110)

## VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements that have been specifically identified as being not applicable to this permitted facility:

| Citation        | Title of Citation | Description of Applicability |
|-----------------|-------------------|------------------------------|
| None identified | N/A               | N/A                          |

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

## **VII. General Conditions**

### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9 VAC 5-80-110 N)

### **B. Permit Expiration**

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all terms and conditions of the previous permit, including any permit shield granted pursuant to 9

VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.  
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)

### **C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.  
(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.  
(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
  - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
    - (i) Exceedance of emissions limitations or operational restrictions;
    - (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or

compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”  
(9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3\_APD\_Permits@epa.gov

(9 VAC 5-80-110 K.5)



**E. Permit Deviation Reporting**

The permittee shall notify the Director, Southwest Regional Office, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VIII.C.3 of this permit.  
(9 VAC 5-80-110 F.2, and 9 VAC 5-80-250)

**F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Southwest Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the facility and control equipment is again in operation, the owner shall notify the Director, Southwest Regional Office.  
(9 VAC 5-20-180 C)

**G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)

**H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)

**I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

**J. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

**K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

**L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

(9 VAC 5-80-110 K.1)

**M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H, and 9 VAC 5-80-340 C)

**N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to

be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne, shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

**Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
  2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
  3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
  4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (9 VAC 5-80-110 K.2)

**R. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

**T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
- (9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

**U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.
  - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notice fulfills the requirement of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.  
(9 VAC 5-80-250)

**V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-190 C, and 9 VAC 5-80-260)

**W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-80 E)

**X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)

**Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9 VAC 5-60-70, and 9 VAC 5-80-110 A.1)

**Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

**AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

**BB. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

## **SOURCE TESTING REPORT FORMAT**

### Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address and report date

### Certification

1. Signed by team leader / certified observer (include certification date)
- \* 2. Signed by reviewer

### Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- \* 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

### Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- \* 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

### Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

### \* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

### Appendix

- \* 1. Process data and emission results example calculations
2. Raw field data
- \* 3. Laboratory reports
4. Raw production data
- \* 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

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\* Not applicable to visible emission evaluations.